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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,398	06/28/2004	Maxwell Bushby		4401

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EXAMINER	
HICKS, ROBERT J	

ART UNIT	PAPER NUMBER
3781	

MAIL DATE	DELIVERY MODE
11/01/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

CT

Office Action Summary	Application No.	Applicant(s)	
	10/500,398	BUSHBY, MAXWELL	
	Examiner	Art Unit	
	Robert J. Hicks	3781	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 September 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 September 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed on September 26, 2007 under 37 CFR 1.111 has been entered. The examiner acknowledges the amendments made to the specification, the drawings, and the claims.

2. Because of the applicant's amendments, the original objections to the specification, drawings, and claims, in the office action dated June 6, 2007 have been withdrawn.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

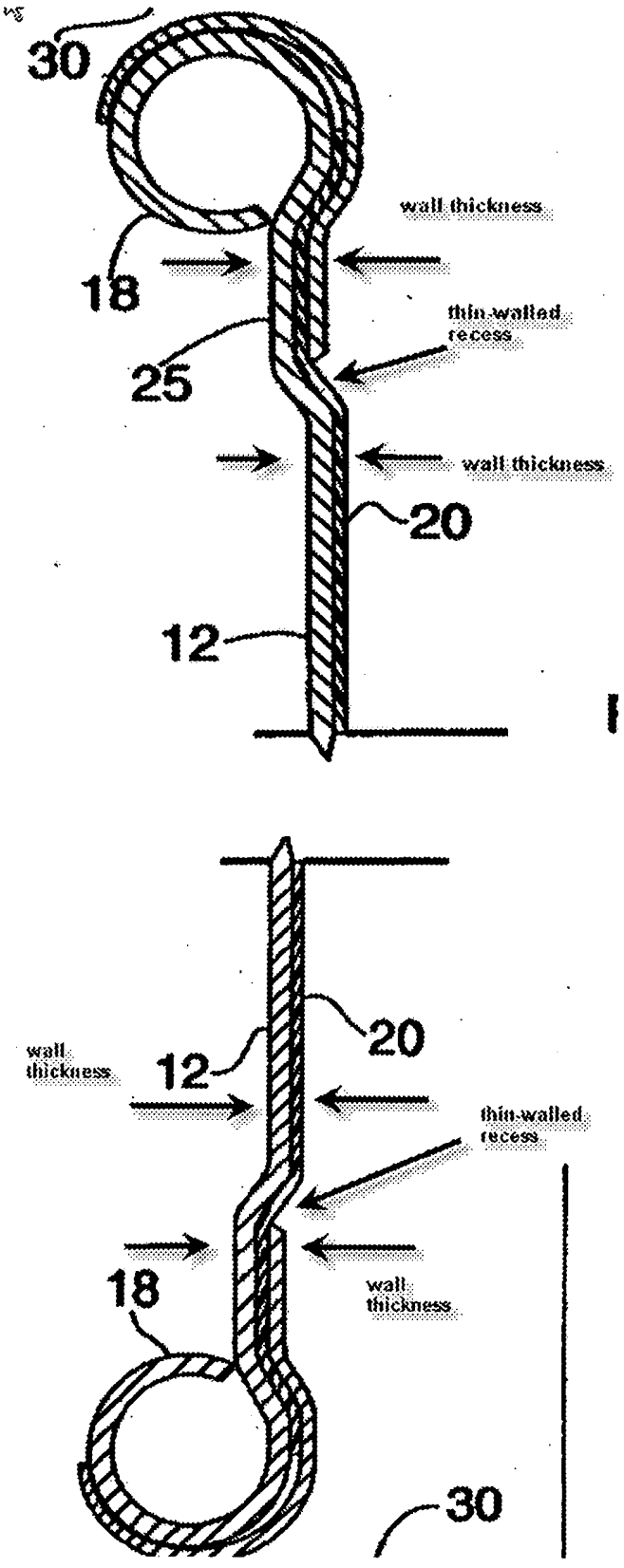
1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-2, and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mirasol, Jr. (U.S. Patent No. 3,485,436) [hereinafter Mirasol] in view of Hale (U.S. Patent No. 5,320,243).

6. Regarding Amended Claim 1, the patent to Mirasol – a container assembly structure discloses the following:

a thermoplastic body (10) having a disc like top (16) moulded as one with a tubular element defining the sides of the body and extending downwardly from the peripheral portions of the top (Fig. 1); means associated with the top to facilitate opening by an end user (Fig. 1, 16 and Fig. 5, 23); a thermoplastic base member (13) having an externally directed protrusion (15) sized to engage a relatively thin walled recess (12) in the radially internally facing lower peripheral portion of the body thereby effecting a permanent seal at the base of the container after filling thereof (Fig. 2c), and the resistance to permanent inward deformation of the externally directed protrusion exceeding the resistance to permanent outward deformation of the thin walled recess (Col. 2 Lines 18-22).

Mirasol does not expressly disclose that the protrusion permanently outwardly deforms the recess, or that the wall thickness of the lower peripheral portion of the body both immediately above and below the thin walled recess exceeding that of the thin walled recess; however, the patent to Hale – a reusable metal drum – discloses a metal block (Hale, 26) within the container assembly (Hale, 10) that permanently deforms a thin walled recess within the container (Hale, Fig. 4b). The deformation can take place either in the top (Hale, Fig. 4a) or bottom (Hale, Fig. 4b) of the drum. The wall thicknesses above and below the thin-walled recess both exceed that of the thin-walled recess.


30
wall thickness
18
thin-walled recess
25
wall thickness
20
12
20
wall thickness
12
thin-walled recess
18
wall thickness
30

It would have been obvious at the time of the invention to one of ordinary skill, using the teaching, suggestion, and motivation within the prior art, to modify the bottom closure base in the Mirasol container to permanent deform the container, as suggested by Hale, to prevent the base from sliding out once attached to the bottom.

Although Hale is a metal drum it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Hale teaches that the container wall can be deformed permanently when a base (or block) can be placed inside the container, and stretched the container wall to deform.

7. Regarding Claim 2, Mirasol in view of Hale discloses all the limitations substantially as claimed, as applied to claim 1 above; further, Mirasol teaches that the externally directed protrusion extends externally and downwardly. (**Mirasol**, Fig. 2a) The Mirasol rim (15) is made of a resilient material allowing the base to flex inwardly when it enters the bottom of the can, and when the base comes to rest in the thin-walled recess, the base will return to its normal state (**Mirasol**, Fig. 2b – 2c, and Col. 2 Lines 11-22).

8. Regarding Claim 4, Mirasol in view of Hale discloses all the limitations substantially as claimed, as applied to claim 1 above; further, Mirasol teaches the resistance to permanent inward deformation of the externally directed protrusion exceeds the resistance to permanent outward deformation of the thin walled recess due

to the fact that the radially externally directed protrusion is fabricated from thicker thermoplastic material than that present in the thin walled recess. (**Mirasol**, Col. 2 Lines 15-18).

9. Regarding Claim 5, Mirasol in view of Hale discloses all the limitations substantially as claimed, as applied to claim 1 above; further, Mirasol teaches an area where the base-body interface is provided with a secondary seal apart from that effected by the externally directed protrusion nesting in the thin walled recess; this secondary seal being effected by one or more resiliently deformable annular protrusions from the base contacting the body and deforming thereagainst so as to form a seal when the externally directed protrusion nests in the thin walled recess as to form the primary seal (**Mirasol**, Fig. 4).

10. Regarding Claim 6, Mirasol in view of Hale discloses all the limitations substantially as claimed, as applied to claim 1 above; further, Mirasol teaches an area where the base-body interface is provided with a secondary seal apart from that effected by the externally directed protrusion nesting in the thin walled recess; this secondary seal being effected by one or more resiliently deformable annular protrusions from the body contacting the base and deforming thereagainst so as to form a seal when the externally directed protrusion nests in the thin walled recess as to form the primary seal (**Mirasol**, Fig. 4).

11. Claims 3, and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mirasol in view of Hale as applied to claim 1 above, and further in view of Stewart (U.S. Patent No. 4,909,394).

12. Regarding Claim 3, Mirasol in view of Hale discloses all the limitations substantially as claimed, as applied to claim 1 above. The Mirasol and Hale combination does not expressly disclose the radially innermost side of the protrusion defining with the adjacent surface of the base an undercut; the included angle of the undercut being between 20 and 45 degrees; however, the patent to Stewart - plastic cups with sidewalls and protrusions – discloses "... the ramp being ... preferably an angle between 12 degrees and about 45 degrees to the vertical, ...the lug being rounded (for example, circular) in cross-section and being radially compressible when it engages the intermediate sealing surface to seal the two together," (**Stewart**, Col. 3 Lines 32-39). It would have been obvious at the time of the invention to one of ordinary skill, using the teaching, suggestion, and motivation within the prior art, to modify the angle of the protrusion stated in the Mirasol and Hale combination base to form an undercut angle between 20 and 45 degrees, as suggested by Stewart, so that "...the above structural configuration provides a cup or container which is simple to manufacture, [and] provides an effective seal." (**Stewart**, Col 3. Lines 57-59).

13. Regarding Claims 8-9, Mirasol in view of Hale discloses all the limitations substantially as claimed, as applied to claim 1 above. The Mirasol and Hale combination does not expressly disclose the specifics of the interferences between both: the radially outermost extremity of the protrusion and the recess in the thin walled section, and that of the lowermost surface of the protrusion and that complementary surface of the recess of the body. However, the patent to Stewart clearly discloses "Because the width of lug 36 is greater than the depth of groove 28 be several

thousandths of an inch at the centre of the lug, the outer several thousandths of an inch of the lug at the centre engages with, is compressed by, and compresses, wall 32 (see Figs. 5 and 9). As is apparent, only a small portion of wall 32 is engages by the central several thousandths of an inch of the lug creating the radial seal." (**Stewart**, Col. 5 Lines 60-67). It would have been obvious at the time of the invention to one of ordinary skill, using the teaching, suggestion, and motivation within the prior art, to manufacture the Mirasol and Hale combination container so that there were several thousandths of an inch interference at the engagement of the protrusions of the base and the recesses of the wall, as suggested by Stewart, so that "...the seal is maintained between the central portion of the lug 36 and the wall 32." (**Stewart**, Col. 6 Lines 10-12). The examiner interpreted the applicant's reference to the interference between the protrusion and the recess as not being critical in this application of the assembly of the base and the body within the claimed invention.

14. Regarding Claim 10, Mirasol in view of Hale discloses all the limitations substantially as claimed, as applied to claim 1 above. The Mirasol and Hale combination does not expressly disclose the radially outermost extremity of the protrusion has a relatively sharp edge exhibiting a radius of between zero and 2.5 mm; however, Stewart clearly discloses that the protrusion "has a radius of 1.0 mm" (**Stewart**, Col. 4 Line 48). It would have been obvious at the time of the invention to one of ordinary skill, using the teaching, suggestion, and motivation within the prior art, to modify the outermost protrusion extremity of the Mirasol and Hale combination to have a radius of 1.0 mm, as suggested by Stewart, so that "the lug creates a

compression seal with the intermediate sealing surface of the groove." (**Stewart**, Col. 4 Lines 23-25).

15. Regarding Claim 11, Mirasol in view of Hale discloses all the limitations substantially as claimed, as applied to claim 1 above. The Mirasol and Hale combination does not expressly disclose a thermoplastic can wherein the wall thickness of the lower peripheral portion of the body below the thin walled recess exceeds the minimum wall thickness of the thin walled recess by at least 20 per cent; however the patent to Stewart expressly discloses this feature in Fig. 3 and in Col. 4 Lines 38-54. It would have been obvious at the time of the invention to one of ordinary skill, using the teaching, suggestion, and motivation within the prior art, to increase the wall thickness at the base of the Mirasol and Hale combination container to a range where the thickness of the lower peripheral wall is at least 20 per cent more than the thickness of the thin walled recess, as suggested by Stewart, to improve the strength of the container to hold the base.

16. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mirasol in view of Hale as applied to claim 1 above, and further in view of Setty (U.S. Patent No. 5,713,484).

Mirasol in view of Hale discloses all the limitations substantially as claimed, as applied to claim 1 above. The Mirasol and Hale combination does not expressly disclose fabricating cups using the thermoplastic material polyolefin. However, the patent to Setty – a thermoplastic container with removable covers – various thermoplastics used in fabrication including "...polyethylene, polypropylene and other

thermoplastic materials ..." (**Setty**, Col 3. Lines 27-28). It would have been obvious at the time of the invention to one of ordinary skill, using the teaching, suggestion, and motivation within the prior art, to manufacture the Mirasol and Hale combination container from a polyolefin plastic material, as suggested by Setty, "...to provide a commercially viable two-piece plastic container and removable cover which is particularly adapted for containing flowable products." (**Setty**, Col 1. Lines 22-25)

Response to Arguments

17. Applicant's arguments, see Remarks Page 11, filed September 26, 2007, with respect to the rejection(s) of claim(s) 1 under 103(a) as obvious over Mirasol in view of Hayes (U.S. Patent No. 5,267,662) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of obviousness over Mirasol in view of Hale as applied to claim 1.

18. In response to the applicant's argument that Mirasol has "no 'relatively thin walled recess' in the lower peripheral portion of Mirasol's body" (Remarks, Page 11 Lines 4-5), Mirasol teaches that there is a recess in lower peripheral portion of the container, and the examiner interprets the wall of the container to be thin-walled. Therefore there is a thin-walled recess in the peripheral body.

19. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that a feature upon which applicant relies (i.e., "adequate for liquids as is the case with the invention" [Remarks, Page 11 Line 17]) is not recited in the rejected claim(s). Although the claims are interpreted in light of

the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

20. In response to the applicant's argument that no prior art speaks of a protrusion permanently outward deforming a thin walled recess (Remarks, Page 12 Lines 5-8), Hale teaches of a protrusion (Hale, 26) that is able to permanently deform a thin-walled recess either in the top or bottom of the drum (Hale, Figs. 4a and 4b).

21. In response to the applicant's argument that no prior art speaks of the wall thickness above and below the thin-walled recess exceed that of the thin-walled recess (Remarks, Page 12 Lines 12-15), Hale teaches this feature in Figs. 4a and 4b.

Conclusion

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: see PTO-892 Notice of References Cited for prior art considered relevant to this application.

23. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert J. Hicks whose telephone number is (571) 270-1893. The examiner can normally be reached on Monday-Friday, 7:30 AM - 4:00 PM, EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on (571) 272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Robert Hicks/RH
10/25/2007

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